## ABSTRACT OF THE DISCLOSURE

A method of ascertaining the LSD (Lysosomal storage disorder) status of an individual comprising taking a tissue or body fluid sample from the individual and estimating a level in the sample of each of three or more compound indicators. The indicators reflect the level of respectively each of three or more lipid containing storage associated compounds. The levels are used to calculate an LSD index number which is then compared with a standard to provide an assessment of the LSD status of the individual. The indicator compounds are conveniently phospholipids, glycolipids or lipopolysaccharide species measured by mass spectrometry. The method may be used to ascertain the nature of the disorder from which the individual stuffers, and its severity. It may also be used to monitor the progress of treatment and to ascertain the prospects of an individual contracting an LSD by providing a subclinical indicators for the condition.